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NEW REPRESENTATIONS OF CHARIOTS ON ATTIC GEOMETRIC VASES

THE publication in this JOURNAL by Miss Gisela M. A. Richter¹ of two colossal Dipylon amphorae lately acquired by the Metropolitan Museum of Art in New York gives me a favorable opportunity to sum up the particulars in which chariot representations on vases of this and other geometric classes published since the year 1909, when my dissertation on the earliest Greek chariot types was written,² have enriched our knowledge of the chariot during the geometric period in Attica and to correct some errors committed by other writers who have treated of these vases.

In chapter II of my above mentioned monograph I have distinguished two types represented on monuments of the geometric period. The first, called by me the "Egyptian" type from its affinity with the genuine Egyptian chariots known from wall reliefs and from originals preserved by the dry climate of Egypt,³ and represented by chariot models of clay or bronze, vase paintings, and a fibula with incised drawing, seems to be a survival from the Mycenaean period, when similar chariots consisting of a framework rising from a floor curved in front, and furnished with a long fastening which connects the end of the pole with the top of the front, appear on gems and probably also on terra-cotta models.⁴ A good example of this type with open framework is

¹ A.J.A. Second Series, XIX, 1915, p. 385 ff., pls. XVII-XXIII.

² E. v. Mercklin, *Der Rennwagen in Griechenland, I. Teil*. Inaugural-Dissertation, Leipzig, 1909. This monograph is quoted in the following with the letter M. and the number of page or monument.

³ For the Egyptian chariots cf. O. Nuoffer, *Der Rennwagen im Altertum, I. Teil*. Inaugural-Dissertation, Leipzig, 1904, pp. 10 ff. The well-known original chariot in the Archaeological Museum in Florence (Nuoffer *op. cit.* pl. I, 1, Studniczka, *Jb. Arch. I.* XXII, 1907, p. 147, Breasted, *History of Egypt*, fig. 105, Milani, *Il R. Museo Archeologico di Firenze*, p. 125 and pl. XVI) shows the most striking analogies to the chariots in question.

⁴ For the gems see M. p. 11 f., Nos. 6-8; the sard from Vaphio published 'Εφ. 'Αρχ. 1889, pl. 10, 30, seems to show a chariot with open framework. For the terra-cotta models see M. pp. 12 ff., pl. I, No. 9.

given by a little bronze chariot found at Olympia.¹ More frequently occurs the second type, which I have called Helladic, for it is the direct forerunner of the archaic chariot on the Greek mainland. This type, like the other, is represented by some terra-cotta and bronze models and by a long series of vase paintings. The floor of the chariot is here not curved at the front, but

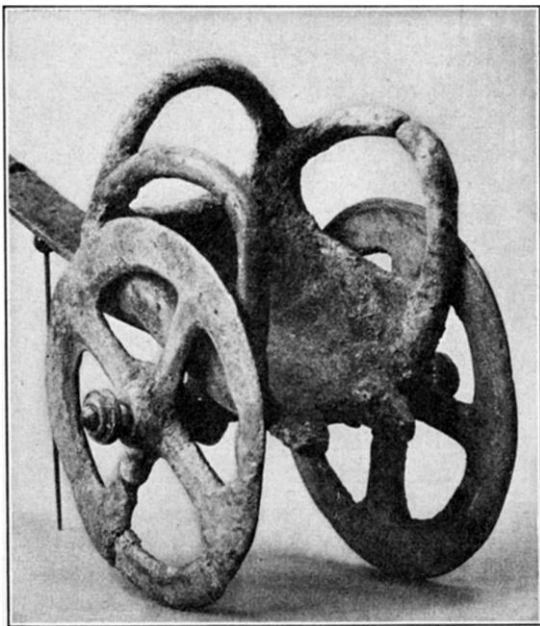


FIGURE 1.—BRONZE MODEL OF CHARIOT; BERLIN
(Scale about 1:1)

is rectangular; the body, open at the back, is surrounded at the front and on two sides by a framework consisting of three arched wooden pieces, closed in their lower half with wood, leather, or basket-work, open in the upper part, as is clearly shown by a bronze model in the Berlin Antiquarium (Fig. 1).² In some instances there are vertical supports connecting

the arched rail with the closed part of the body, as we can see in a terra-cotta chariot in the British Museum (Fig. 2).³

¹ M. p. 32, No. 38 and pl. I; *Olympia, Die Ergebnisse*, IV, pl. 15, No. 253. Another bronze model, also found at Olympia and mentioned by me as No. 41, has since been published by F. Weege in *Ath. Mitt.* XXXVI, 1911, pl. VI, 7 and p. 187.

² M. p. 43, No. 51. H. (including the rails) 0.068 m., Diameter of the wheel 0.054 m. The body is 0.032 m. broad and 0.04 m. long. It is not known where this model was found; its provenience from the former Koller collection seems, however, to indicate that it comes from Southern Italy or Sicily. The pole did not belong originally to the model; cf. the detailed description of this monument, M. p. 46 f.

³ M. p. 43, No. 50. Diameter of the wheel about 0.16 m. The body is about 0.075 m. broad and 0.05–0.06 m. long. Provenience unknown.

It is to this second or Helladic type that all the chariots belong which are represented on the vases which I shall examine briefly in this paper. As I have pointed out in my dissertation, among the vase paintings relating to this type we must distinguish two groups, according to the kind of perspective used by the vase painters. The more developed in this respect are the representations where the chariot appears seen exactly from the side, as

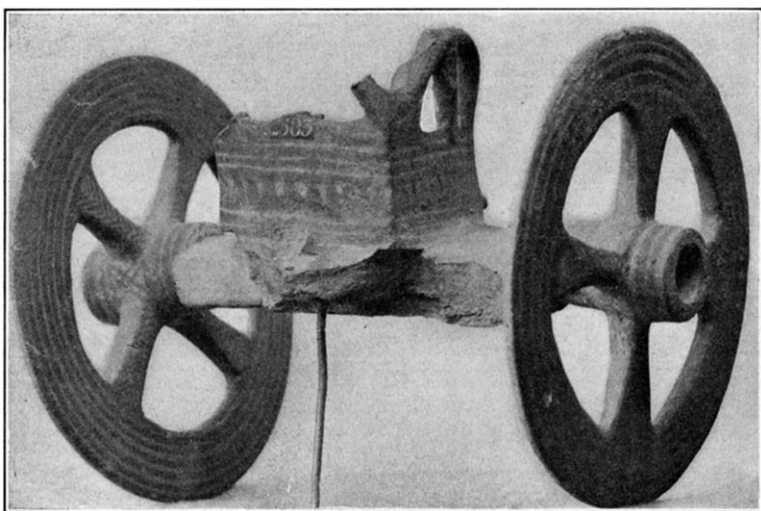


FIGURE 2.—TERRA-COTTA MODEL OF CHARIOT; BRITISH MUSEUM (Scale about 4:10)

then becomes usual in the archaic period.¹ On the geometric vases this final result is actually reached quite seldom,² but it is possible to observe in all its phases the development which leads to it. In the other group the painter gives the individual pieces of which the chariot consists all disconnected in their most characteristic aspects.

The monuments published since the year 1909 to my knowledge are the following:

¹ See *e.g.* the krater of Klitias and Ergotimos in Florence: Furtwängler und Reichhold, *Griech. Vasenmalerei* I, pls. 1-2 and 11-12. Birch-Walters, *History of Ancient Pottery*, I, pl. XXVIII.

² As illustrating the final stage I know only the amphora from Eleusis, *Jb. Arch. I.* XIV, 1899, p. 194, 57. = M. No. 53.

I GROUP (Cf. M. pp. 50 ff.)

- a. Amphora in New York. *B. Metr. Mus.* VI, 1911, p. 33, fig. 6; cf. p. 32 (G. M. A. R[ichter]).
- b. Amphora in New York, *op. cit.* fig. 7.
- c. A fragment from the shoulder of a great vase found on the Acropolis at Athens. B. Graef, *Die antiken Vasen von der Akropolis zu Athen*, p. 29, No. 293, pl. 10.
- d. Fragments found on the Acropolis, probably from a great amphora. Graef, *op. cit.* p. 34 f., No. 345, pls. 11, 12.
- e. Fragments of a "Phaleron" amphora found at Old Phaleron. 'Eφ. 'Aρχ. 1911, p. 249 f., figs. 11-13 (Kuruniotis).

On c the chariot is not preserved.

II GROUP (Cf. M. pp. 56 ff.)

- f. Dipylon amphora in New York, from Attica. A.J.A. Second Series, XIX, 1915, pls. XVII-XX and XXIII, 1, pp. 386 ff. (G. M. A. Richter). See also *B. Metr. Mus.* X, 1915, p. 70, fig. 2.
- g. Dipylon amphora in New York, from Attica. *Op. cit.* pls. XXI, XXII and XXIII, 2, 3, pp. 394 ff.; *B. Metr. Mus.* X, 1915, p. 70, fig. 1.
- h. A fragment from the Dipylon, in Paris, Louvre A 552. Morin-Jean, *Le dessin des animaux en Grèce d'après les vases peints*, p. 15, fig. 2, left.
- i. Another Dipylon fragment, Louvre A 553. Morin-Jean, *op. cit.* p. 15, fig. 2, right.
- k. A fragment from Athens, in the Bosnisch-herzegowinisches Landesmuseum at Serajevo. *Wissenschaftliche Mitteilungen aus Bosnien und der Herzegowina*, XII, 1912, p. 268, No. 48 (37), fig. 23 (E. Bulanda).
- l. A fragment found at Old Phaleron. 'Eφ. 'Aρχ. 1911, p. 251, fig. 19 (Kuruniotis).

On i and l the chariot is missing.

It is impossible to assign with certainty to either of the above two groups

- m. A terra-cotta fragment, probably part of a box, found on the Acropolis at Athens and showing only two horses and remains of the figure of the driver. Graef, *Die antiken Vasen von der Akropolis*, p. 27, No. 279, pl. 9.

There is no difficulty in recognizing in the vase paintings of the first group (*a-e*) the chariot type shown by the models published in Figures 1 and 2. According to the perspective used in this group (see above) one wheel alone is indicated. In order to avoid confusion the painter raises the body of the chariot above the wheel. Moreover, the driver is placed entirely on the upper border of the closed part of the chariot and appears to be standing on it, while in reality he is standing on the floor. On *a* the short horizontal projection at the back of the chariot ending in a little vertical bar recalls the analogous projections of the models.¹

The curved front and side rails of the framework are drawn separately on *a*, where they assume the form of loops; the front rail is represented before the driver, the side rails (or more precisely the only side rail visible in the strictly profile view) appear behind him. That this distortion is simply the result of a striving for clearness and does not correspond to the reality, is shown by *b* and *e*, where the connexion of side and front rails is given quite correctly. On *e* we have moreover the vertical support which divides the front rail in its middle, as it originally was in the terra-cotta chariot (Fig. 2), where it is now broken away. On *b* both side rails are visible because arranged in a concentric manner, a peculiarity known also from some other geometric monuments.²

It seems to me impossible to explain the representations on *a* and in the lower frieze on *g* as "one-horse chariots,"³ because I

¹ Beside the models published here such projections occur also on geometric models of the "Egyptian" type and on the genuine Egyptian chariots (see M. p. 36). For other instances on vase paintings see M. p. 54.

² M. p. 54, No. 67 (amphora from Hymettus, *Jb. Arch. I.* II, 1887, pl. 5) and No. 76 (amphora of Boeotian geometric style, in Munich, published now in Sieveking u. Hackl, *Die kgl. Vasensammlung zu München*, I, p. 35, No. 400, pl. 14).

³ Richter on *a* and on *g*, p. 395; here it appears to me that not only the chariots in the lower row, but also the second chariot from the right in the middle frieze on pl. XXIII, 2 (*A. J. A.* 1915) is represented as apparently a "single-horse chariot." In speaking of the number of the horses on Dipylon vases Miss Richter (on *f*, p. 389, note 9) has not referred to the quadrigae represented on the latest geometric vases (M. No. 65, *Arch. Ztg.* 1885, p. 139 and Reichel, *Homerische Waffen*,² p. 124, 66, and M. No. 66, *Ath. Mitt.* XVII, 1892, pl. 10; cf. also M. p. 65) and known also from several models (e.g. M. No. 49 and pl. 3, 'Εφ. 'Αρχ. 1896, pl. 3). There are also teams of four horses plastically represented and serving as handles on the covers of Dipylon pyxides; to the examples *a* and *b* given by me, p. 48, note 3, we can add some new monuments:

cannot admit that such were in general use among the ancients;¹ as I have pointed out in my dissertation (p. 64), we have rather to recognize here the same perspective as is used in the representation of one wheel instead of two; moreover on *a* are given two reins instead of four. These pseudo one-horse chariots ("Scheineinspänner") occur also on Egyptian, late Assyrian, Phoenician, Cyprian, Mycenaean and Italic monuments.² One may quote also Furtwängler's observation concerning a similar geometric chariot representation on an amphora in the Berlin Antiquarium: "es ist nur ein Pferd angegeben, doch müssen wenigstens zwei gedacht sein, da die Deichsel darauf weist."³ On *b* and *e* the existence of a pair of horses is certain. On *d*, I think, were represented trigae, as we can conclude from the three tails (fragment G in Graef's enumeration) and the three pairs of reins (fragments G and H). The style of the horses' manes (fragment F) and the group of short lines hanging from the fastening between the end of the pole and the front of the chariot (fragment H) connect these fragments with the Munich Phaleron krater,⁴ but they appear, as has been already observed by Graef, to be earlier than the developed Phaleron vases. On

(c) Helbing, *sale catalogue "Griechische Ausgrabungen,"* 27-28, June, 1910, No. 26, pl. I; (d) Hanover, Kestner Museum, *Prähistorische Zeitschrift*, I, 1909, pl. XIII, 1; (e) Copenhagen, National Museum, Case 54, *Führer durch die Antikensammlung*, p. 94, 35; (f) Cologne, Niessen collection, *Sammlung Niessen, Köln, Beschreibung . . . III. Bearbeitung* 1911, No. 3116, pl. CVII; (g, h, i) three pyxides were in 1910 in the possession of an Athenian dealer and came probably from the cemetery to the south of the Acropolis; on one of them were preserved only three horses. From the same source came a pyxis with two horses; for other examples of this type see M. p. 48, note 1.

¹ An exception are the monuments in which children stand on carts drawn by one animal, e.g. Winter, *Typen der figürlichen Terrakotten*, II, 304, 6. Other references M. p. 11, note 1.

² Egyptian and late Assyrian: Nuoffer, *Der Rennwagen im Altertum*, pp. 23, 50, 70; Phoenician and Cyprian: Studniczka, *Jb. Arch. I. XXII*, 1907, pp. 177, 184; Mycenaean: M. p. 26; Italic: Nachod, *Der Rennwagen bei den Italicern und ihren Nachbarvölkern*, Diss. Leipzig, 1909, p. 21: *situlae* Nos. 4, 7, 9; of the stelae referred to only No. 10 represents apparently a "single-horse chariot"; it is now published also in *Rend. Acc. Lincei*, 1910, pl. II, with discussion on pp. 264 ff., see especially p. 269 f., and *Mon. Ant. XX*, p. 585, fig. 46 (Ducati). Cf. also Grenier's article "triga" in Daremberg et Saglio, *Dictionnaire*, V, 465.

³ *Arch. Anz.* 1892, p. 100, 4; M. No. 62.

⁴ M. No. 69, published also in *Arch. Anz.* 1910, p. 55, 4. The lines are a survival of pennants used as decoration on Oriental and Mycenaean chariots: M. pp. 5, 12, 25, 56. Cf. e.g. *Brit. Mus. Catalogue of vases*, I, 2, C 352.

the fragment L there seem to be preserved not only the remains of a wheel, but also the curved back of the side frame of the chariot. It remains impossible, however, to explain the three lines, two of which intersect, in the extreme right upper corner of this fragment. The bird sitting on the reins behind the horse's head (fragment F) recalls the owls sitting on the pole fastening on a Corinthian aryballus at Breslau¹ and on a Corinthian pinax in the Louvre² and the birds on the end of the pole on a great Melian amphora in Athens,³ on a Melian fragment in Berlin,⁴ on a relief from the "Sicyonian" treasury at Delphi,⁵ and also the cocks on terra-cotta votive pinakes from Locri Epizephyrii.⁶ Our example is, so far as I know, the earliest hitherto published.⁷ On fragment J, where remains of a wheel have been observed by Graef, I propose to recognize the representation of a man who is on the point of mounting the chariot; his body, except one leg and foot, is missing.

In proceeding to illustrate the monuments of the second group (f-I) it is necessary to repeat that these represent the same chariot type as that of the models published here, but in a much more primitive perspective. The two wheels are shown one beside the other. That it is not a four-wheeled chariot, as is still sometimes stated,⁸ is proved not only by the consideration that two-wheeled war- and race-chariots are usual in this—and we can say

¹ *Mon. d. Inst.* III, pl. XLVI 2; Rossbach, *Griechische Antiken des archäologischen Museums in Breslau*, p. 5.

² *Monum. grecs*, 1882-84, p. 27, fig. 5.

³ Collignon et Couve, *Catalogue*, No. 475. Conze, *Melische Thongefässe*, pl. IV; Buschor, *Griech. Vasenmalerei*², p. 73, fig. 53.

⁴ *Arch. Ztg.* 1854, pl. 62, 3 and Conze, *op. cit.* vignette before the text.

⁵ *Fouilles de Delphes*, IV, pl. VII/VIII, 2. Perrot et Chipiez, *Histoire de l'art*, VIII, p. 367, fig. 163.

⁶ *Not. Scav.* 1884, pl. I, 3 and p. 251 f., *Boll. d'Arte*, III, 1909, p. 465, fig. 32.

⁷ See in general Hörnes, *Urgeschichte der bild. Kunst*, p. 482, note 7. Boehlau, *Jb. Arch. I.* II, 1887, p. 36. Hauser in Furtwängler und Reichhold, *Griech. Vasenmalerei*, III, p. 6, interprets the owl sitting on the horse's mane on the Corinthian krater with the departure of Amphiarus, in Berlin (*ibid.* pl. 121), as a motive derived from the older representations here in question.

⁸ Morin-Jean, *Dessin des animaux*, p. 15. He gives on p. 16, fig. 3, a chariot from the same Dipylon vase in Paris (Louvre A 517), which I have studied as No. 75 making use of a tracing kindly procured by E. Pottier. Both chariots are almost identical; the forked upper end of the front rail on the chariot there published is surely due to carelessness of the painter and does not correspond to reality, as likewise the lack of the pole fastening, which occurs correctly on the other team.

in all—periods of antiquity,¹ but also by an example of a four-wheeled cart represented on a Dipylon ekphora vase in Athens with all its four wheels depicted side by side.² On the other hand we have a chariot frieze from a Dipylon amphora published by me when in the possession of a dealer,³ where we see the bodies of the chariots represented in the same manner as is usual in this group, but with one wheel only.

Just as the wheels are depicted one alongside the other, so the front piece of the chariot, represented in front view, is placed beside the side piece or upon it. The side rail, which now assumes the form of a horse-shoe, is placed behind and above the closed side piece in order not to interfere with the figure of the driver. It is for this reason that this perspective has been misunderstood first by Helbig,⁴ then by Reichel, who explains the side rail also

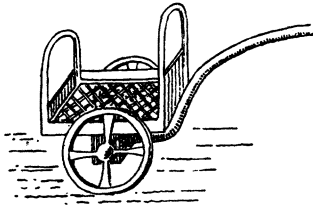


FIGURE 3.—INCORRECT RECONSTRUCTION OF A GEOMETRIC CHARIOT (after Reichel)

as a back piece seen from the front in the same manner as the front piece, and gives a reconstruction of this type in fig. 65 of the second edition of his *Homerische Waffen*, which is here reproduced (Fig. 3). In discussing the two New York amphorae *f* and *g* Miss Richter follows him in speaking also of “front and back-pieces” (pp. 389 and 395).

This incorrect explanation I have already rejected in my dissertation (p. 61): it is in contradiction to every normal and usual ancient chariot type, when we assume that the back of the chariot was closed while the sides remained open and unprotected, in such a manner that the driver was constrained to climb over the wheel in mounting the chariot. On *g* all the chariots have arched front and side rails, on *f* it is only the first chariot on the right, judging from the illustration (*A.J.A.* 1915, pl. XXIII, 1), which corresponds to the description of Miss Richter, that the chariots have “curved front and back (*i.e.* side)

¹ Richter on *f*, p. 389, note 5, with reference to Reichel, *Homerische Waffen*², p. 120 f.

² M. p. 59, note 2; *Ath. Mitt.* XVIII, 1893, p. 101 f.; Collignon et Couve, No. 199; K. F. Müller, *Der Leichenwagen Alexanders des Gr.* p. 14 f.; Bieber, *Verzeichnis der käufli. Photographien des K. Deutschen Archäol. Inst. in Athen*, I, Nos. 2980 and 2981.

³ M. pl. 2, No. 78, and p. 59.

⁴ Helbig, *Homerisches Epos*², p. 139.

pieces," the front pieces of the others terminating above in a horizontal line. This peculiarity occurs also on other Dipylon fragments,¹ as well as the distinction between a vertically or cross hatched side and a solidly painted front piece. The hatching on the side piece is probably to be referred to a piece of basket-work, as is shown on Oriental, Mycenaean, Ionian and Etruscan monuments² and described in the Homeric poems.³ On *g* the bodies of the chariots seem to be shorter than is usual in this group and correspond better to the chariot models; the artist has placed the front and side rails not on the side piece, but alongside of it. The closed part of the chariot is here represented either as a solidly painted surface or decorated with vertical hatchings. The first chariot from the right on pl. XXIII, 3 has an unusually high body. So far as I can see from the publication no pole and no fastening between pole and chariot are indicated by the painter of this vase.

On the fragments *h*, *i*, *k*, *l* no new peculiarity deserves notice, while the chariots on the amphora *g* give for the first time a sure example of the eight-spoked wheel on Attic works of this period. This fact is decisive also for the correct interpretation of another case, where I have only conditionally proposed to recognize the eight-spoked wheel: on an amphora in the Berlin Antiquarium⁴ the artist has painted one wheel within the other and given to it eight spokes. I have supposed that perhaps this could have been also an experiment to show both wheels, each with four spokes, the eight-spoked wheel not being known at all on monuments of the Greek mainland during this period. Now I have no longer any hesitation in adding this example of an eight-spoked wheel to the new one represented by the amphora *g*, while on the other monuments, where chariot wheels are painted one within the other,⁵ these have the regular four spokes.

The painter of the amphora *g* has also made an interesting attempt to show the two men standing on the chariot by drawing them in the perspective called by R. Delbrueck "seitliche Staffellung,"⁶ a proceeding which to my knowledge, as applied to the

¹ M. Nos. 72, 74 and the funeral car on a fragment at Bonn, M. p. 60, note 3, *Arch. Anz.* 1890, p. 10 B, II, 2.

² M. p. 61. Nachod, *Der Rennwagen bei den Italikern*, pp. 50, 55, 59.

³ Helbig, *op. cit.* p. 127, note 11, and p. 142; Reichel, *op. cit.* p. 125 f.

⁴ M. No. 62 (see p. 402, note 3), pp. 53, 66.

⁵ M. No. 53, 61, 65.

⁶ R. Delbrueck, *Beiträge zur Kenntnis der Linienperspektive in der griechischen Kunst*, Diss. Bonn, 1899, pp. 1 and 18. See *A.J.A.* 1915, pl. XXIII, 3, fourth

human figure, occurs here for the first time (cf. Richter, p. 395, note 2).

Likewise the series of trigae known before only from two examples on geometric vases¹ and from a few teams of three horses in terra-cotta placed on the covers of Dipylon pyxides² has been increased now by the fragments *d* (see above) and by the chariot procession on the New York amphora *f*. The use of a side horse (*παρόρος*) besides the two yoke horses—characteristic especially of the Assyrians beginning with the ninth century B.C., known also to the Eastern Greeks of the Homeric poems and widely diffused by the Etruscans,³—is, therefore, not so rare as it formerly seemed in the late geometric period of Attica.

In conclusion I desire to mention a peculiarity occurring on the fragment *m*, where the end of the pole is connected by a double fastening instead of the usual single one with the front of the chariot, and to call attention to the fact that in no instance is a whip⁴ held by the driver, but always a goad (*κέντρον*), the former being an Oriental characteristic and the latter belonging to the Greek mainland.⁵

EUGEN V. MERCKLIN.

ROME, MAY, 1916.

and fifth chariot from the left, and also the upper frieze on pl. XXII, where in the middle is a similar group.

¹ Louvre A 541; Pottier, *Vases antiques de Louvre*, I, pl. 20. Perhaps also the Phaleron pyxis in Athens, *Jb. Arch. I.* II, 1887, p. 55, No. 13, figs. 19 and 20, M. No. 68 and p. 65. Grenier in his article "triga" in Daremberg et Saglio agrees with me in the interpretation of this vase.

² M. p. 48, note 2. We must now add the pyxis referred to in the Helbing sale catalogue "*Griechische Ausgrabungen*," 27–28, June, 1910, No. 25 (from Attica). No. b of my note is now reproduced also in Daremberg et Saglio, V, p. 467, fig. 7053.

³ See Grenier's article "triga" in Daremberg et Saglio, *Dictionnaire*, V, 465 ff. Cf. also Helbig, *op. cit.* p. 128 f., Reichel, *op. cit.* p. 141 f., Nuoffer, *op. cit.* pp. 41, 51; Studniczka, *Jb. Arch. I.* XXII, 1907, p. 195; Nachod, *op. cit.* p. 63.

⁴ Richter on *f* and *g*, pp. 389 and 395.

⁵ On the goad see Sorlin Dorigny in Daremberg et Saglio, *Dictionnaire*, IV, 2, p. 1511, s.v. *stimulus*, I. Cf. Nachod, *op. cit.* p. 63.